SF FILE NUMBER
5.2.0

335202

7245

REMOVAL ASSESSMENT

NATIONAL PRIORITIES LIST SITES

REGION VIII

I. SITE INFORMATION

A. SITE NAME: RICHARDSON FLAT TAILINGS	
B. SITE LOCATION:	
1. ADDRESS:	
2. CITY: PARK CITY	
3. STATE/ZIP: UTAH 84060	
4. SECTION: NW¼-1 TOWNSHIP: 25	RANGE: 4E
C. CERCLIS ID: UTD980952840	
D. SSID: 94	
E. DATA COLLECTORS:	
1. PRE-TRIP:	DATE:
2. ON SITE:	DATE:
3. POST TRIP:	DATE:

II. FACILITY STATUS

A. TYPE OF FACILITY:

Hazardous Substance	Waste Type	Quantity
HEAVY METALS	TAILINGS	

B. REMEDIAL OPERABLE UNITS(S)					
ID	SITE DT.	CONST. DT.	COMP. DT.	REMEDY	GOAL

* Assuming NPL listing occurs with Final Rule # 10

III. REMEDIAL PROGRAM STATUS/SCHEDULE

A. NPL LISTING: PROPOSED- NPL UPDATE # 7	FINAL- —
B. RI/FS START: 91/4 *	
C. RECORD OF DECISION: 94/1 *	
D. REMEDIAL DESIGN: 95/4 *	
E. REMEDIAL CONST: START- 95/4 *	COMPL- 97/2 *

IV. REMOVAL(S) AND ASSESSMENT(S)

A. ALTERNATIVE WATER SUPPLY PROVIDED: (YES/NO)	
1. TEMPORARY / PERMANENT: NA	
2. POPULATION SERVED: N/A	
3. DATE STARTED: NA	COMPL:
B. SITE SECURED: (YES / NO)	
1. SITE FENCED: YES	DATE: UNK
2. GUARD / SIGN POSTED: UNK	DATE: UNK
3. OTHER MEASURES:	

C. POPULATION RELOCATED:(YES / NO)
1. POPULATION NUMBER: NA
2. TEMPORARY MEASURE: START- NA COMPL-
3. PERMANENT MEASURE: START- NA COMPL-
4. COMMENTS: NA
D. COMPLETED REMOVAL ACTION(S):

(The following (E-M) should differentiate between: 1) Waste Type; 2)Media Effected; 3) Observed recent findings; 4) File Documentation.)

E. IMMEDIATE EXPOSURE TO NEARBY HUMAN POPULATIONS, ANIMALS, OR THE FOOD CHAIN FROM HAZARDOUS SUBSTANCES OR POLLUTANTS OR CONTANIMANTS: NA
F. CONTAMINATION OF DRINKING WATER SUPPLIES: Possible Sol° contamination -- TBD thru further study.
G. CONTAMINATION OF SENSITIVE ECOSYSTEMS: NA
H. HAZARDOUS SUBSTANCES OR POLLUTANTS OR CONTAMINANTS IN DRUMS, BARRELS, TANKS OR OTHER BULK STORAGE CONTAINERS THAT MAY POSE A THREAT OF RELEASE: NA
I. HIGH LEVELS OF HAZARDOUS SUBSTANCES OR POLLUTANTS OR CONTAMINANTS IN SOILS LARGELY AT OR NEAR THE SURFACE THAT MAY MIGRATE: Surface covered w/ top soil cap?

J. WEATHER CONDITIONS THAT MAY CAUSE HAZARDOUS SUBSTANCE OR POLLUTANTS OR CONTAMINANTS TO MIGRATE OR BE RELEASED.

High wind events or flooding may cause migration of contaminants?

K. THREAT OF FIRE OR EXPLOSION:

NA

L. OTHER APROPRIATE FEDERAL OR STATE RESPONSE MECHANISMS AVAILABLE TO RESPOND TO RELEASE:

TBD.

M. OTHER SITUATIONS OR FACTORS THAT MAY IMPACT THREATS TO PUBLIC HEALTH OR THE ENVIRONMENT:

To be determined with further study.

V. RECOMMENDED REMOVAL ACTIONS:

A. NO REMOVAL ACTION WARRANTED:
Certification: We, the undersigned RPM and OSC, have reviewed the available information on the site and/or conducted a site inspection, and based on this information, there are presently no immediate threats at this site.

RPM_____ OSC Mike Zimmerman (If warranted, proceed to B)
DATE_____ DATE 8/24/90

B. ADDITIONAL ASSESSMENT REQUIRED: ~~(Yes/~~If (No) go to C)

C. REMOVAL ACTION RECOMMENDED: (No/if Yes circle numbers as appropriate)
1. FENCES, WARNING SIGNS, OR OTHER SECURITY OR SITE CONTROL PRECAUTIONS.
2. DRAINAGE CONTROLS FOR RUN-OFF OR DIVERSION.
3. STABILAZATION OF BERMS, DIKES, IMPOUNDMENTS OR DRAINAGES OR CLOSING OF LAGOONS.
4. CAPPING OR STABILAZATION OF CONTAMINATED SURFACES, SOILS OR SLUDGES.
5. USE OF CHEMICALS AND OTHER MATERIAALS TO RETARD THE SPREAD OF RELEASE OR TO MITIGATE ITS EFFECT.
6. EXCAVATION, CONSOLIDATION, OR REMOVAL OF HIGHLY CONTAMINATED SOILS FROM DRAINAGES OR OTHER AREAS.
7. REMOVAL OF DRUMS, BARRELS, TANKS, OR OTHER BULK CONTAINERS THAT CONTAIN OR MAY CONTAIN HAZARDOUS SUBSTANCES OR POLLUTANTS OR CONTAMINANTS.
8. CONTAINMENT, TREATMENT, DISPOSAL, OR INCINERATION OF HAZARDOUS MATERIALS.
9. PROVISIONS FOR ALTERNATIVE WATER SUPPLY.
10. OTHER ACTION:

VII. CONCURRANCE:

RPM [signature]
DATE 8/28/90

OSC _____
DATE _____

MANAGEMENT [signature]
DATE 8/28/90

MANAGEMENT _____
DATE _____

VERY ROUGH DRAFT: UNEDITED

Very old material - Vintage 1988

Ref: 8HWM-ER

MEMORANDUM

TO: Record

FROM: H. Hays Griswold

SUBJECT: Richardson Flats: Possible Remediation Plan

This plan first assumes that the tailings do not contain any minerals/metals in economic quantities and concentrations. Or, quantities and concentrations that, given any future and reasonably expected increase in metals prices, will make the tailings economical to reprocess.

This plan also assumes that the continued and perpetual presence of the tailings where they are now situated will not cause any adverse affect on the groundwater around the tailings pile. Recent communications with the EPA-RPM on the site indicated that some metals contamination was found in groundwater as indicated from samples taken from existing monitoring wells. However, the degree of contamination was thought to be very small and insignificant.

Given the above assumptions the tailings pile should be first graded and contoured to fit surrounding terrain and accommodate the necessary drainage requirements as detailed below. They should then be covered with at least 18 inches of good grade top soil and an appropriate grass seed mixture planted. It may be necessary to put down a layer of crushed limestone between the tailings and the topsoil for pH stabilization. The topsoil could probably be obtained from the valley area over the ridge to the east that will be inundated by the Jordenel Dam/Reservoir. The grass seed mixture will be one determined to be the most effective in thriving in the local climate and the soil conditions.

A runoff interceptor ditch will be constructed around the upgradient sides of the tailings pile. This ditch will be designed to carry the runoff from a 100 year 3 day maximum rainfall falling in the catchment basin in which the tailings are located. The ditch will be lined and rip rapped according to standard open channel hydraulic engineering practices to prevent erosion of the channel sides. (Note: a similar channel or substitute for the above may be routed through the tailings pile aligned with the pre-tailings drainage pattern.)

If the above interceptor ditch is constructed around the tailings then a runoff drainage ditch will be constructed through the middle of the tailings pile. It will be designed to convey any excess runoff (overland flow or surficial flow) that may be generated by an excessive rainfall falling directly on the tailings pile. This ditch will be armored/rip rapped in order to prevent erosion down through the cap exposing the tailings. The above mentioned grading of the tailings pile will be done in a manner allowing good drainage to this ditch.

The land the tailings pile is on will be protected by a restricted deed of some form to prevent any future development of any kind that may in any way (excavations,etc.) re-expose the tailings or cause the tailings to come in contact with the human population or exposure to the environment. One form may be to restrict the deed while it remains in the possession of the PRP and for any future successive owners of the property. Another may be to have the PRP, for certain unspecified (to be negotiated) considerations, deed the property to Park City, Utah, (State Highways for a Park) or even a federal entity and designate the area a park in perpetuity. This property will apparently in the near future be located between and at the apex of a junction of two state highways. It may be a good spot for a rest-area of some sort.

In the event that the groundwater table is in fact the surface of the standing water evident at this time at the tailings and presently forming a sizable but shallow pond on the north 1/3 of the tailings pile then a groundwater drainage system will be required to lower the water table to below the bottom of the tailings pile. This drainage system will need to be designed to work essentially in perpetuity. This may involve something on the order of a french drain type configuration properly located and draining perhaps by pipe to and on sufficient grade with a spot down-gradient and in the present normal surface water drainage.

NPL Site Name: RICHARDSON FLATS, PARK CITY, UTAH

We have completed a preliminary review of the above site and plan to take the following action (check one):

_____ A site visit needs to be conducted before the assessment can be done. We have tentatively scheduled the visit for _____(month).

✓ It is unlikely there is an immediate threat or there is an ongoing removal action to address any threats. The assessment will be completed by August 30.

_____ We believe that a removal action is warranted and are proceeding with efforts to initiate it while the assessment form is being completed.

Jim Jagh — 5/4/90
RPM(s) — date

Mike Zimmerman — 5/7/90
OSC — date